3. (Amended) [A] The method of forming a crystalline film according to Claim 1, wherein the thin film is a metallic thin film.

4. (Amended) [A] The method of forming a crystalline film according to Claim 1 [Claims 1 to 3], wherein the [second] step of crystallizing is carried out under atmospheric pressure.

5. (Amended) [A] The method of forming a crystalline film according to Claim 1 Claims 1 to 4], wherein at least the surface layer of the thin film is melted and crystallized in a [the] hydrogen-containing atmosphere that contains an inert gas and hydrogen molecules.

6. (Amended) [A] The method of forming a crystalline film according to Claim [Claims 1 to] 4, wherein the hydrogen-containing atmosphere contains an inert gas and a hydrogen halide.

7. (Amended) [A] The method of forming a crystalline film according to Claim [Claims 5 and] 6, wherein the inert gas is a rare gas.

8. (Amended) [A] The method of forming a crystalline film according to Claim [Claims 5 and] 6, wherein the rare gas is argon.

9. (Amended) [A] The method of forming a crystalline film according to Claim [Claims 1 to] 8, wherein in the [second] step of crystallizing, at least the surface of the thin film is melted by supplying high energy to the thin film.

10. (Amended) [A] The method of forming a crystalline film according to Claim 9, wherein the form of the high energy is light.

11. (Amended) [A] The method of forming a crystalline film according to Claim 9, wherein the form of the high energy is a laser beam.

12. (Amended) [A] The method of forming a crystalline film, comprising the steps of:

[a first step of] forming a semiconductor thin film on a substrate[,]; and

[a second step of] crystallizing at least the surface layer of the semiconductor thin film, [wherein;] such that [in

the second steps,] at least the surface layer of the semiconductor thin film is melted and crystallized under an atmosphere containing a gas containing the component element of the semiconductor thin film.

13. (Amended) [A] The method of forming a crystalline film according to Claim 12, wherein the step of crystallizing [second step] is carried out under atmospheric pressure.

14. (Amended) [A] The method of forming a crystalline film according to Claim 12 [and 13], wherein the gas containing the component element of the semiconductor thin film is a hydride of the component element.

15. (Amended) [A] The method of forming a crystalline film according to Claim 12 [and 13], wherein the semiconductor thin film is a silicon thin film, and the gas containing the component element of the semiconductor thin film is silane.

16. (Amended) [A] The method of forming a crystalline film according to Claim 12 [Claims 12 to 15], wherein in the step of crystallizing [the second step,] at least the surface of the semiconductor thin film is melted by supplying high energy to the semiconductor thin film.

17. (Amended) [A] The method of forming a crystalline film according to Claim 16, wherein the form of the high energy is light.

18. (Amended) [A] The method of forming a crystalline film according to Claim 16, wherein the form of the high energy is a laser beam.

19. (Amended) A high energy supply apparatus for use with an object material, [at least] comprising:

a generation source [for generating] that generates high energy; and

a supply chamber [for supplying] that supplies high energy to [an] the object material, wherein[:];

the object material is disposed in the supply chamber [has the function to set the object material therein];

the supply chamber [has] includes an introduction window that introduces [provided a portion of the supply chamber, for

introducing the] high energy into the supply chamber [therein]; and

the introduction window is disposed at a location resistant to adherence of [provided at a position where the component] components of the object material [hardly adheres] to the introduction window when the high energy is supplied to the object material.

20. (Amended) A method of forming a crystalline film, comprising the steps of:

[a first step of] forming a thin film on a substrate[,]; and

[a second step of] crystallizing at least the surface layer of the thin film by supplying high energy thereto, wherein:

[the second step] crystallizing is carried out in a high energy supply apparatus [comprising] which includes a generation source for generating the high energy and a supply chamber for supplying the high energy to the thin film;

the thin film is set in the supply chamber;

the supply chamber [has] includes an introduction window that introduces [provided in a portion thereof, for introducing] the high energy [thereinto] into the supply chamber; and

the high energy is supplied to the thin film with the introduction window disposed at a location resistant to adherence of components [provided at a position where the component] of the thin film [hardly adheres to the introduction window] when the high energy is supplied to the thin film.

21. (Amended) [A] The method of forming a crystalline film according to Claim 20, wherein the thin film is a semiconductor thin film.

22. (Amended) [A] The method of forming a crystalline film according to Claim 20, wherein the thin film is a metallic thin film.

23. (Amended) [A] The method of forming a crystalline film according to Claim 20 [Claims 20 to 22], wherein the form of the high energy is light.

24. (Amended) A high energy supply apparatus for use with an object material, [at least] comprising:

a generation source [for generating] that generates high energy; and

a supply chamber [for supplying] that supplies high energy to [an] the object material, wherein[:];

the object material is disposed in the supply chamber [has the function to set the object material therein];

the supply chamber [has] includes an introduction window that introduces [provided a portion of the wall of the supply chamber, for introducing the] high energy into the supply chamber [therein]; and

[the] a distance between the introduction window and the object material is larger than [the] a shortest distance between the wall and the object material.

25. (Amended) A method of forming a crystalline film, comprising the steps of:

[a first step of] forming a thin film on a substrate[,]; and

[a second step of] crystallizing at least the surface layer of the thin film by supplying high energy thereto, wherein:

[the second step] crystallizing is carried out in a high energy supply apparatus [comprising] which includes a generation source for generating the high energy and a supply chamber for supplying the high energy to the thin film, wherein: [;]

the thin film is set in the supply chamber;

the supply chamber [has] includes an introduction window that introduces [provided in a portion of the wall thereof, for introducing] the high energy [thereinto] into the chamber; and

the high energy is supplied to the thin film with [the] a distance between the introduction window and the thin film larger than [the] a shortest distance between the wall and the thin film.

26. (Amended) [A] The method of forming a crystalline film according to Claim 25, wherein the thin film is a semiconductor thin film.

27. (Amended) [A] The method of forming a crystalline film according to Claim [Claims] 25, wherein the thin film is a metallic thin film.

28. (Amended) [A] The method of forming a crystalline film according to Claim 25 [Claims 25 to 27], wherein the form of the high energy is light.

29. (Amended) A high energy supply apparatus for use with an object material, [at least] comprising:

a generation source [for generating] that generates high energy; and

a supply chamber that supplies [for supplying] high energy to [an] the object material, wherein[:];

the object material is disposed in the supply chamber [has the function to set the object material therein];

the supply chamber [has] includes an introduction window that introduces [provided a portion of the wall of the supply chamber, for introducing] the high energy into the supply chamber [therein]; and

the supply chamber has pressure regulating means for permitting the pressure in the vicinity of the introduction window to be higher than the pressure in the vicinity of the object material.

30. (Amended) A method of forming a crystalline film, comprising the steps of:

[a first step of] forming a thin film on a substrate[,]; and

[a second step of] crystallizing at least the surface layer of the thin film by supplying high energy thereto, wherein:

[the second step] crystallizing is carried out in a high energy supply apparatus which includes [comprising] a generation source for generating the high energy and a supply chamber for supplying the high energy to the thin film;

the thin film is set in the supply chamber;

the supply chamber [has] includes an introduction window that introduces [provided in a portion of the wall thereof, for introducing] the high energy into the supply chamber [thereinto]; and

the high energy is supplied to the thin film under [the] a pressure in vicinity of the introduction window that is higher than [the] a pressure in the vicinity of the thin film in the supply chamber.

31. (Amended) [A] The method of forming a crystalline film according to Claim 30, wherein the thin film is a semiconductor thin film.

32. (Amended) [A] The method of forming a crystalline film according to Claim 30, wherein the thin film is a metallic thin film.

33. (Amended) [A] The method of forming a crystalline film according to Claim 30 [Claims 30 to 32], wherein the form of the high energy is light.

34. (Amended) A high energy supply apparatus for use with an object material [at least] comprising:

a generation source [for generating] that generates high energy; and

a supply chamber that supplies [for supplying] high energy to [an] the object material, wherein[:];

the object material is disposed in the supply chamber [has the function to set the object material therein];

the supply chamber [has] includes an introduction window that introduces [provided a portion of the wall of the supply chamber, for introducing] the high energy into the supply chamber [therein], and an exhaust port for exhausting the supply chamber; and

the supply chamber has pressure regulating means for permitting the pressure in [the] a vicinity of the introduction window to be higher [the] than a pressure in the vicinity of the object material, and the pressure in the vicinity of the object material to be higher than [the] a pressure in the vicinity of the exhaust port.

Sub C4

35. (Amended) A method of forming a crystalline film, comprising the steps of:

[a first step of] forming a thin film on a substrate[,]; and

[a second step of] crystallizing at least the surface layer of the thin film by supplying high energy thereto, wherein:

[the second step] crystallizing is carried out in a high energy supply apparatus which includes [comprising] a generation source for generating the high energy and a supply chamber for supplying the high energy to the thin film;

the thin film is set in the supply chamber;

the supply chamber [has] includes an introduction window that introduces [provided in a portion of the wall thereof, for introducing] the high energy into the supply chamber [thereinto], and an exhaust port for exhausting the air in the supply chamber; and

the high energy is supplied to the thin film under the pressure in vicinity of the introduction window higher than [the] a pressure in the vicinity of the thin film, and [the] a pressure in the vicinity of the thin film higher than the pressure in [the] a vicinity of the exhaust port in the supply chamber.

4/38

36. (Amended) [A] The method of forming a crystalline film according to Claim 35, wherein the thin film is a semiconductor thin film.

4/37

37. (Amended) [A] The method of forming a crystalline film according to Claim 35, wherein the thin film is a metallic thin film.

A' cont

38. (Amended) [A] The method of forming a crystalline film according to Claim 35 [Claims 35 to 37], wherein the form of the high energy is light.

SUB F11

39. (Amended) A high energy supply apparatus for use with an object material, [at least] comprising:

a generation source that generates [for generating] high energy; and

a supply chamber that supplies [for supplying] high energy to [an] the object material, wherein[:];

the object material is disposed in the supply chamber [has the function to set the object material therein];

the supply chamber [has] includes an introduction window that introduces [provided a portion of the wall of the supply chamber, for introducing] the high energy into the supply chamber [therein];

the object material is irradiated with the high energy introduced into the supply chamber through the [introducing] introduction window along an irradiation path assumed in the supply chamber;

a part of the high energy enters the object material, and another part is reflected from the object material and travels along a reflection path assumed in the supply chamber;

a gas flow is present in the supply chamber; and

the supply chamber has gas flow regulating means for permitting the gas flow to travel from the introduction window to the object material in substantially the same direction as the irradiation path, and a gas flow from the object material in substantially the same direction as the reflection path.

40. (Amended) A method of forming a crystalline film, comprising the steps of:

[a first step of] forming a thin film on a substrate[,]; and

[a second step of] crystallizing at least the surface layer of the thin film by supplying high energy thereto, wherein:

[the second step] crystallizing is carried out in a high energy supply apparatus [comprising] which includes a generation source for generating the high energy and a supply chamber for supplying the high energy to the thin film;

the thin film is set in the supply chamber;

the supply chamber [has] includes an introduction window that introduces [provided in a portion of the wall thereof, for introducing] the high energy into the supply chamber [thereinto];

the thin film is irradiated with the high energy introduced into the supply chamber through the introduction window along a irradiation path assumed in the supply chamber;

a part of the high energy enters the thin film, and another part is reflected from the thin film along a reflection path assumed in the supply chamber;

a gas flow is present in the supply chamber; and

the high energy is supplied to the thin film with the gas flow from the introduction window to the thin film in substantially the same direction as the irradiation path, and the gas flow from the thin film in substantially the same direction as the reflection path.

41. (Amended) [A] The method of forming a crystalline film according to Claim 40, wherein the thin film is a semiconductor thin film.

42. (Amended) [A] The method of forming a crystalline film according to Claim 40, wherein the thin film is a metallic thin film.

43. (Amended) [A] The method of forming a crystalline film according to Claim 40 [Claims 40 to 42], wherein the form of the high energy is light.

44. (Amended) A high energy supply apparatus for use with an object material, [at least] comprising:

a generation source [for generating] that generates high energy; and

a supply chamber [for supplying] that supplies high energy to [an] the object material, wherein[:];

the object material is disposed in the supply chamber [has the function to set the object material therein];

the supply chamber [has] includes an introduction window that introduces [provided a portion of the wall of the supply chamber, for introducing] the high energy into the supply chamber [therein];

the thin film is irradiated with the high energy which is introduced into the supply chamber through the introduction window along an irradiation path assumed in the supply chamber; and

the introduction window is disposed so that the normal line of the thin film is shifted from the direction of the irradiation path.

45. (Amended) A high energy supply apparatus for use with an object material, [at least] comprising:

a generation source that generates [for generating] high energy; and

a supply chamber that supplies [for supplying] high energy to [an] the object material, wherein[:];

the supply chamber has setting means for setting the thin film therein;

the supply chamber has an introduction window that introduces [provided a portion of the wall of the supply chamber, for introducing] the high energy into the supply chamber [therein];

the thin film is irradiated with the high energy which is introduced into the supply chamber through the introduction window along an irradiation path assumed in the supply chamber; and

the setting means is disposed so that the normal line of the thin film is shifted from the direction of the irradiation path.

46. (Amended) A method of forming a crystalline film, comprising the steps of:

[a first step of] forming a thin film on a substrate[,]; and

[a second step of] crystallizing at least the surface layer of the thin film by supplying high energy thereto, wherein:

crystallization [the second step] is carried out in a high energy supply apparatus that includes [comprising] a generation source for generating the high energy and a supply chamber for supplying the high energy to the thin film;

the thin film is set in the supply chamber;

the supply chamber has an introduction window provided in a portion of the wall thereof, for introducing the high energy thereinto;

the thin film is irradiated with the high energy introduced into the supply chamber through the introduction window along a irradiation path assumed in the supply chamber; and

the high energy is supplied to the thin film with the normal direction of the thin film shifted from the direction of the irradiation path.

47. (Amended) [A] The method of forming a crystalline film according to Claim 46, wherein the thin film is a semiconductor thin film.

48. (Amended) [A] The method of forming a crystalline film according to Claim 46, wherein the thin film is a metallic thin film.

49. (Amended) A method of forming a crystalline film according to Claim [Claims 46 to] 48, wherein the form of the high energy is light.

50. (Amended) A high energy supply apparatus for use with an object material, [at least] comprising:

a generation source that generates [for generating] high energy; and

a supply chamber that supplies [for supplying] high energy to [an] the object material, wherein[:];

the thin film is disposed in the supply chamber [has the function to set the thin film therein];

when the high energy is introduced into the supply chamber to irradiate the object, part of the high energy enters the object material, and another part is reflected from the object material to form reflected energy; and

the supply chamber and course changing means for irradiating again the object material with the reflected energy.

51. (Amended) [A] The high energy supply apparatus according to Claim 50, wherein the course changing means has [the] a time regulating function to delay the time of irradiation of the object material with the reflected energy.

52. (Amended) [A] The high energy supply apparatus according to Claim 51[.], wherein the time regulating function

[comprises] includes a plurality of reflection means for reflecting the high energy.

53. (Amended) [A] The high energy supply apparatus according to Claim [Claims 50 to] 52, wherein the course changing means has [the] a positioning function to permit a desired position of the thin film to be irradiated with [the] reflected energy.

54. (Amended) [A] The high energy supply apparatus according to Claim [Claims 50 to] 53, wherein the high energy is light, and the course changing means includes [comprises] a mirror.

55. (Amended) [A] The high energy supply apparatus according to Claim Claims 50 to] 53, wherein the high energy is light, and the course changing means comprises converging means.

Sub C9

56. (Amended) A method of forming a crystalline film, comprising the steps of:

[a first step of] forming a thin film on a substrate[,]; and

[a second step of] crystallizing at least the surface layer of the thin film by supplying high energy thereto, wherein:

crystallization [the second step] is carried out in a high energy supply apparatus including [comprising] a generation source for generating the high energy and a supply chamber for supplying the high energy to the thin film;

the thin film is set in the supply chamber;

the supply chamber has an introduction window provided in a portion of the wall thereof, for introducing the high energy thereinto;

A' cont.

when a first position of the thin film is irradiated with the high energy introduced into the supply chamber, part of the high energy enters the thin film; and

another part of the high energy is reflected to form reflected energy with which a second position of the thin film is then irradiated through a course changed.

57. (Amended) [A] The method of forming a crystalline film according to Claim 56, wherein during the time the first position is irradiated with the high energy, irradiation of the